METHOD AND SYSTEM FOR DEFINING SETS BY QUERYING RELATIONAL DATA USING A SET DEFINITION LANGUAGE

ABSTRACT OF THE DISCLOSURE

5   The present invention relates to the usage pattern, commonly found in many software applications, of defining sets of objects based on object attributes. A specifically designed set definition language for defining sets, called SDL, is described and a software system that implements this language efficiently on top of a standard relational database management system (RDBMS) is presented. The unique features of the SDL language are the implicit constraints that are enforced on the relational data that belong to the objects. Unique to the SDL system is also the logical metadata of dimensions that enables the SDL system to enforce these constraints across relations. The SDL system utilizes several optimization techniques to enable efficient implementation on top of RDBMS. It is also shown how the SDL language and the SQL language can be merged with bidirectional inlining using syntactic gates. Query composition tools are also described that facilitate the creation of SDL expressions.